

REMARKS

In the foregoing amendments, claims 1-26 are canceled and claims 27-77 are added. Claims 27-77 are now pending in the present application.

Response to Drawing Objections

The Examiner required that numeric blocks of Fig. 1 be labeled with descriptive legends. In response thereto, block 12, 13, 16, and 18 now contain descriptive legends.

The drawings were objected to under 37 CFR 1.83(a) and the Examiner required that every feature specified in the claims must be shown in the drawings or the feature canceled from the claims. Particularly, the Examiner required that the "sensor," "transducer," and "storage device" be shown. In response thereto, Fig. 1 now includes a "sensor" 28 (or external stimulus detector) for detecting an external stimulus, support for which can be found in the originally filed specification on p. 2, lines 23-27. Regarding the "transducer," this element has been canceled from the claims. Regarding the "storage device," Fig. 1 now includes a storage device 26, support for which can be found in the originally filed specification on p. 4, lines 29-33.

Since Applicant has accommodated all of the Examiner's objections to the drawings, it is therefore respectfully requested that the objections be withdrawn.

Response to Objections to the Specification

The disclosure was objected to because it does not contain a description of the "short range radio transmitter 13." Applicants assert that a description of the short range radio transmitter, which is in or on the image capture device 10, is present in the original specification and shown in the figure. However, since the reference number "13" for the radio transmitter in or on the image capture device had mistakenly been referenced in the specification by the number "18," the specification has now been amended to correct these reference numbers.

The specification was also objected to for failing to provide proper antecedent basis for the claimed subject matter. The Examiner required that a specification be submitted containing a description of the "sensor," "transducer," and "storage device" as claimed in claims 7-9, 12, 17, and 25. It should be noted that the sensor,

transducer, and storage device are mentioned in claims 7-9, 12, and 25 and that claim 17 includes an "infrared transmitter" and "infrared receiver."

It is respectfully submitted that the "sensor" (or external stimulus detector) is described in the summary of the specification on p. 2, lines 23-27. Nevertheless, this subject matter from the summary, originally omitted from the detailed description, has now been included in the detailed description and described in conjunction with Fig. 1, which has been amended according to the objections referenced above. Likewise, the description of the "storage device" (described in the summary on p. 4, lines 29-33) has been included in the detailed description and described in conjunction with new Fig. 1. A description of the "transducer" has not been added to the specification and all references to a "transducer" in the claims have been removed.

Regarding the "infrared transmitter" and "infrared receiver," the subject matter from original claim 17 has been incorporated into the specification to described these elements as required by the Examiner's objections. In addition, to satisfy the intent of Examiner's drawing objection mentioned above, the "infrared transmitter" and "infrared receiver" have been included in Fig. 1 in accordance with the description included in original claim 17.

References Relied Upon to Support Objections/Rejections

Robinson (U.S. Patent No. 6,33,683) discloses a multipurpose wireless video alarm device that transmits audio and video signals of a monitored enclosure. The signals are wirelessly transmitted to a remote location when an alarm signal is triggered by an alarm sensor. The audio and video signals are transmitted until the condition that triggered the alarm sensor ceases or until the alarm system is reset.

Everett, Jr. et al. (U.S. Patent No. 4,857,912) discloses an intelligent security assessment system that includes a multiplicity of sensors for detecting intrusion into an area. The sensors operate on different principles, such as sound, vibration, infrared, microwave, and light. A computing system receives the outputs and uses an algorithm that minimizes the likelihood of a false indication of intrusion. The computing system uses weighting factors for each sensor, sums the weighting factors, and compares the sum to a reference. The computing system activates additional intrusion detectors, such as an ultrasonic detector and a video surveillance camera for observing the area where intrusion is indicated.

Borg (U.S. Patent No. 6,313,872) discloses a security system for homes and small offices that provides snapshots of the potential trespassers. The system comprises a scene capture unit consisting of a motion detector, camera, and circuitry that converts the camera signal into a sequence of integers. The sequence of integers are communicated to a scene recovery unit and a signal is generated therefrom a signal that causes the scene and time of occurrence to be displayed on a portion of a television screen.

Response to 35 U.S.C. §102 Rejection

Claims 1, 2, 4-8, and 26 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by *Robinson* (U.S. Patent No. 6,433,683). Since these claims have been canceled by amendment herein, this rejection is rendered moot. However, with respect to the new claims in the present application, Applicant respectfully submits that *Robinson* does not disclose every element and feature of the claims.

Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. See e.g., *In re Paulsen*, 30 F.3d 1475, 31 USPQ 2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ 2d 1655 (Fed. Cir. 1990).

Claim 27 is directed to a detection system ***“for detecting the presence of an image capture device in the vicinity of a person.”*** An indicator unit emits a signal to the person ***“to indicate the presence of the image capture device in the vicinity of the person.”*** In other words, this claim is directed to a system that “indicates” that an image capture device, e.g. camera, is present.

In contrast, *Robinson* discloses a conventional alarm system that uses an alarm detection device 16 to sense motion. In response to an alarm condition, e.g. motion, video and audio recording is activated, and video and audio signals are transmitted to a remote location. Thus, *Robinson* indicates the presence of an object that triggers the motion detector 16, and does not indicate the presence of the camera 20 itself. *Robinson* does not detect ***“the presence of an image capture device in the vicinity of a person”*** as claimed in claim 27. An object that is located in *Robinson*’s monitored enclosure does not receive any indication from the camera that the camera is in the vicinity of the object. Therefore, *Robinson* further fails to disclose the element of

claim 27 reciting an "*indicator signal*" emitted "*to indicate the presence of the image capture device in the vicinity of the person.*"

In addition, *Robinson* fails to recognize the benefit of the claimed invention in which an indication is given to a person that he/she is in the vicinity of an image capture device and that his/her image may be captured. *Robinson* teaches away from the claims of the present application by monitoring an object in an enclosure for the purpose of security, as is well-known. *Robinson's* device is not designed for public surveillance and does not suggest the courtesy of indicating to an object being monitored whether it is in the vicinity of a camera. In typical security systems, this courtesy is not offered to intruders or burglars, nor would it be beneficial to do so. *Robinson* transmits video and audio signals to a remote location to alert someone at the remote location that an alarm condition is detected in the monitored enclosure.

A claim cannot be deemed obvious in view of a reference or proposed combination of references if the references "teach away" from the claim. See *In re Gurley*, 2 F.3d 551, 31 USPQ2d 1130, 1131 (Fed Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. ... in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.").

As such, Applicants believe that independent claim 27 is clearly and unambiguously distinguished over *Robinson*. For at least this reason, Applicants believe that claim 27 is novel and that the rejection of the claims should be withdrawn. Claims 28-60 depend directly or indirectly from claim 27, and are believed to be allowable for at least the reason that they depend from allowable independent claim 27. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). The dependent claims also include additional elements and features that further distinguish them from *Robinson*.

With respect to independent claim 61, *Robinson* fails to disclose a method for detecting the "*presence of an image capture device in the vicinity of a person.*" Furthermore, *Robinson* fails to disclose "*emitting an indicator signal that indicates the presence of the image capture device in the vicinity of the person*" as claimed.

Therefore, since this reference does not teach each and every step of claim 61, Applicants respectfully submit that independent claim 61 and dependent claims 62-67 are patentable over *Robinson*.

Concerning independent claim 68, *Robinson* fails to disclose a method comprising transmitting a radio signal from an image capture device and ***"receiving the radio signal by a remote detection unit carried by a person, wherein the radio signal is received when the person is in the vicinity of the image capture device."*** Again, it would not be beneficial in the device of *Robinson* to transmit a signal to an intruder when the intruder is in the vicinity of the camera. In this regard, the security system of *Robinson* would be greatly compromised and there would be no reasonable expectation of success.

With further reference to claim 68, *Robinson* fails to disclose ***"indicating the presence of the image capture device to the person in the vicinity of the image capture device"*** as claimed. This step in claim 68 runs against the logic that is typically used in the field of security systems. More specifically, most security systems may intentionally hide an image capture device from an intruder or, at least, not indicate the presence of the image capture device to an intruder. Since *Robinson* does not teach every step of claim 68, Applicants respectfully submit that this claim and dependent claims 69-77 are patentable over this reference.

Response to 35 U.S.C. §103 Rejection

Claim 3 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Robinson* (U.S. Patent No. 6,433,683). Claims 9-24 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Robinson* (U.S. Patent No. 6,433,683) in view of *Everett, Jr. et al.* (U.S. Patent No. 4,657,912). Claim 25 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Robinson* (U.S. Patent No. 6,433,683) in view of *Everett, Jr. et al.* (U.S. Patent No. 4,857,912) and further in view of *Borg* (U.S. Patent No. 6,313,872). These rejections are rendered moot on account of the cancellation of the original claims.

With regard to the newly-added claims, Applicants respectfully traverse these rejections because *Robinson*, *Everett et al.*, and *Borg*, taken alone or in combination, fail to teach or suggest every element of independent claims 27, 61, and 68 and thereby fail to overcome the deficiencies of *Robinson* with respect to these

independent claims as mentioned above. *Everett et al.* and *Borg* disclose security systems for detecting intruders or trespassers in a monitored area, such as a home or office. As mentioned before, claims 27, 61, and 68 are directed to systems and methods for indicating the presence of an image capture device.

One of the concepts of that these claim convey is that a person can be made aware that an image capture device, *e.g.* a camera, is present. This may be used, for instance, in a public area that includes surveillance. The courtesy of indicating the presence of the image capture device to a person in a public area is offered for the sake of informing the person within that area. On the other hand, the devices of *Everett et al.* and *Borg* are used for security purposes and do not offer this courtesy to intruders in the monitored areas. For at least these reasons, Applicants submit that all claims are neither taught nor suggested by the prior art and therefore requests that the claim rejections be withdrawn.

In order to make a proper *prima facie* case of obviousness, three basic criteria must be met, as set forth in MPEP 706.02(j). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant's disclosure.

The prior art fails to meet any of the three criteria mentioned above. Not only is there no motivation to combine elements, the combined elements do include all of the claim limitations of independent claims 27, 61, or 68. Furthermore, there is no motivation to combine the missing elements to indicate the presence of a camera in the prior art references, especially since indicating the presence of a camera to an intruder would only serve to help the intruder in his/her iniquitous behavior and would therefore lead to an expectation of undesirable and unsuccessful results in the field of security systems taught in the prior art.

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the prior art reference must suggest all features of the claimed invention to one of ordinary skill in the art. *See, e.g., In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d

1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

New Claims

Claims 27-77 have been newly added to further define and/or clarify the scope of the invention.

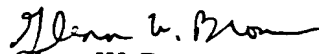
Prior Art Made of Record

The prior art made of record and not used in a rejection of claims has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

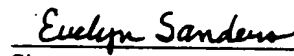
In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 27-77 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,


Glenn W. Brown
Reg. No. 51,310

**THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.**
Suite 1750
100 Galleria Parkway N.W.
Atlanta, Georgia 30339
(770) 933-9500

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Signature -

Attachment(s): Clean Copy of Substitute Specification
 Marked-up Copy of Substitute Specification
 Replacement Sheet

ENVIRONMENTAL CAMERAS

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BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to cameras and, in particular but not exclusively, to video cameras and the like such as those used in public places for security and/or surveillance.

2. Related Background Art

The use of cameras in public places for security purposes is becoming increasingly common, particularly as cameras become cheaper and easier to manufacture. For example, video cameras and other image capture devices are commonly used in retail outlets and the like in an attempt to combat shoplifting and in other public places in an attempt to combat vandalism and other crimes. Such devices act as a deterrent as well as providing video evidence if a crime is committed.

As the use of surveillance cameras becomes more common, and image capture devices become more accessible to the public in general, so the concern of the public increases regarding the potential for an invasion of their privacy. At present, in an attempt to allay such fears, image capturing devices employed in public places are made visually conspicuous and signs indicating their presence are usually displayed.

However, this solution is not always ideal especially where the optimization of space is an issue. Current technology already permits the manufacture of very small but powerful image capturing devices which, for the reasons outlined above, are then housed in relatively large casings so that they will be visually conspicuous. Not only is this an inefficient use of space and materials, but it does not prevent the

unauthorized use of hidden surveillance cameras, which leads to mistrust and discomfort for the general public. It is generally felt that the general public should have the right to be made aware of situations and locations where they may be watched, and current protocols are not considered to achieve this effectively in many circumstances.

SUMMARY OF THE INVENTION

We have now devised an arrangement which seeks to overcome at least some of the problems outlined above. In accordance with the present invention, there is provided image capture device detection system, comprising indicator unit arranged to be installed in or on an image capture device, said indicator unit being configured to emit an indicator signal in response to an external stimulus to indicate the presence of said image capture device.

The present invention also extends to an image capture device including a detection system as defined above.

Methods of detecting the external stimulus will depend on the nature of the stimulus. For example, if it is a noise, a microphone could be used. Alternative detectors include a passive infra-red detector, radar-based motion detector, identifying motion in camera images, etc.

It is envisaged to provide a protocol whereby it is compulsory to provide such an indicating unit on or in all image capturing devices which are intended to be or could be used in public places to observe the general public.

In one embodiment of the invention, the image capturing device may include a warning device for generating an audible and/or visible signal in response to an external signal from, for example, a member of the general public. In its simplest

form, the external signal could, for example, be a hand clap. However, in a preferred embodiment, a remote detection unit may be provided (possibly in a wristwatch or personal organizer) which transmits intermittent interrogation signals that can be received by an image capturing device within a predetermined area, causing it to emit a signal which is either audible and/or visible to the user of the remote unit, or which can be received by the detection unit, causing the detection unit to emit an audible and/or visible signal to alert the user of the presence of a camera in the vicinity. Alternatively, the detection unit may be arranged to vibrate. The detection unit may also have a 'silence' mode in which the user is not alerted to the presence of a camera immediately.

In yet another embodiment of the invention, the image capturing device is simply arranged to transmit intermittent signals which, when received by a remote detection unit, cause said detection unit to emit an audible, visible and/or tactile signal to alert the user of the presence of a camera in the vicinity.

In any event, the remote detection unit may be arranged to alert the user of the presence of the cameras when specifically requested to do so, and it may be arranged to require explicit interaction from the user if it is required to review details of any cameras detected.

In one particularly preferred embodiment of the invention, the image capture device may include a radio receiver and decoder to receive and detect a query signal from a nearby remote detection unit. The image capture device would preferably also include a short range radio transmitter which, in response to the query signal, transmits a radio signal which may include one or more of the following: an identifier signal unique to that particular image capturing device (such as would be necessary for the remote detection unit to address the image capturing device over a wireless

network), a code indicating the image capture device's capabilities, status information (i.e. which, if any, of its capabilities are active), details of the person or entity responsible for the image capture device and/or details of the people or groups of people authorized to access the images captured by the device, and even those accessing the images at any particular time. It may be compulsory for a person or entity to have a ~~license~~license to use covert image capturing devices, in which case the radio signal may include ~~license~~license details and/or the fact that the camera is not licensed. In another embodiment, similar, details could be provided by the remote detection unit to the camera(s), e.g. what camera details are being requested, by whom, for what purpose, etc. Details sent to the camera could include details of a return communication channel, e.g. an e-mail address, to which the details should be sent, or the detector's wireless device address to enable a non-broadcast wireless communication with the camera.

The remote detection unit beneficially includes a display on which at least some of the information transmitted by the image capture device is displayed to the user. The remote detection unit may also include a storage device so that it can store information received from one or more image capture devices detected within a predetermined area.

BRIEF DESCRIPTION OF THE DRAWING

Exemplary embodiments of the invention will now be described in more detail with reference to the accompanying drawing which is a schematic block diagram

representing an image capture device detection system according to the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, a camera 10 according to an exemplary embodiment of the present invention has incorporated therein a short range radio receiver and decoder 12 and a short range radio transmitter ~~18~~13.

A remote detection unit 14 carried or worn by a user also comprises a short range radio receiver and decoder 16 and a short range radio transmitter 18. The remote detection unit 14 further comprises a display screen 20.

The radio transmitter 18 in the remote detection unit 14 transmits intermittent query signals 22. When the remote detection unit 14 is within a predetermined range or distance of the camera 10, the receiver and decoder 12 in the camera 10 receive the query signal(s) and, in response thereto, transmit a short range radio signal 24 which is received by the remote detection unit receiver and decoder 16.

One known protocol which could be used to achieve this is provided by the Bluetooth.TM. technology which permits instant, wireless connections to be made between various devices having a microchip ~~incorporation~~incorporating a radio transceiver ~~built~~built into them, and supports both point-to-point and point-to-multipoint connections. This technology facilitates fast and secure transmissions of data, even when the devices are not within line-of-sight, and because it uses radio transmission, transfer of data is in real-time. The Bluetooth.TM. radio operates in a globally available frequency band which enables communication compatibility worldwide, and the technology is designed to be fully functional even in very noisy radio environments. Further, all data is protected by error-correction protocols, as well as encryption and authentication routines for the users' privacy.

In this embodiment, the radio signal 24 includes a unique identifying signal, a code indicating the camera's capabilities, status information and information relating to the person or entity responsible for the camera. The decoder 16 in the remote detection unit 14 decodes the radio signal 24 and displays some or all of said information on the display screen 20. The remote detection unit 14 may further comprise a storage device 26 for storing information included in the radio signal 24.

The camera 10 may further include a sensor 28, such as an external stimulus detector, which detects external stimuli. The external stimulus detector 28 may be an audible sensor, such as a microphone, for sensing an audible signal or noise.

Alternatively, the external stimulus detector 28 may be a motion detecting device, such as a passive infrared detector, a radar-based motion detector, or a device for detecting motion from the changes observed in camera images. An arrangement of a motion detecting system for detecting the presence of a camera may further include an infrared transmitter 30 in or on the camera 10 and a corresponding infrared receiver

31 in or on the remote detection unit 14.

The camera 10 may include a warning device 32 that generates an audible and/or visible signal. The warning device 32 may emit a signal in response to an external stimulus detected, for instance, by the external stimulus detector 28.

Alternatively, the warning device 32 may emit a signal in response to a query signal 22 or interrogation signal received by the radio receiver 12.

Referring to FIG. 1 again, in an alternative embodiment, a camera 10 according to an exemplary embodiment of the present invention has incorporated therein a receiver and decoder 12 for receiving wireless query signals 22 and a transmitter 13 for transmitting wireless indicator signals 24.

A remote detection unit 14 carried or worn by a user comprises a receiver and decoder 16 for receiving wireless indicator signals 24 and a transmitter 18 for transmitting wireless query signals 22. The remote detection unit 14 further comprises a warning device 19 and/or display screen 20.

A specific embodiment of the present invention has been described above by way of example only, and it will be apparent to a person skilled in the art that modifications and variations can be made to the described embodiment without departing from the scope of the invention as defined in the appended claims.